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Mothers' Perceptions of Stress, Parenting Self-Efficacy,  
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Insights from China, Japan, and the United States

By

Qian Wang

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Committee in charge:

Professor Susan D. Holloway, Chair

Professor Larry Nucci

Professor Qing Zhou

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## Abstract

### Mothers' Perceptions of Stress, Parenting Self-Efficacy, and Permissive and Inconsistent Discipline: Insights from China, Japan, and the United States

by

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Decades of parenting research has shown that heightened stress may interrupt the parenting process and negatively affect the child and the family. However, most existing studies have primarily focused on how stress can undermine parenting, and relatively few have attended to the role of cognitive appraisal in shaping the interpretation and ultimate effects of stressful conditions on parenting behavior. Following theoretical recommendations associated with social cognitive theory as well as transactional theory of stress and coping, the current study examined the association of psychological stress to mothers' use of inconsistent and permissive discipline, focusing particularly on the mediating role of parenting self-efficacy (PSE) in the link between perceived stress and parental discipline. Separate path analyses were conducted with survey data collected from a total of 540 mothers of young children in China ( $n = 113$ ), Japan ( $n = 262$ ) and the United States ( $n = 165$ ). Results indicated significant associations among mothers' perceived stress, PSE, as well as permissive and inconsistent discipline in all three samples, with exceptions in the Chinese sample. Furthermore, path models supported the mediating effect of PSE in the link between mothers perceived stress and the inconsistent parenting in all three samples. In the US and Japanese samples, PSE also mediated the relationship between stress and permissiveness. Overall, these findings suggest the important role of PSE in parents' stress and coping processes across diverse contexts as well but also underscore the importance of examining relevant sociocultural factors that might also contribute to the salience and strength of certain associations.

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# Mothers' Perceptions of Stress, Parenting Self-Efficacy, and Permissive and Inconsistent Discipline: Insights from China, Japan, and the United States

Stress is a common experience in parenthood. An online survey conducted by the American Psychological Association (APA) found that 73% of parents consider family responsibilities a major source of stress (APA, 2010). The emerging work in recent years on phenomena such as helicopter parenting (LeMoyne & Buchanan, 2011) and the “gardener vs. carpenter” parents (Gopnik, 2016), reflects the increasing anxiety and stress among contemporary parents. Although there has been a large body of research on parents’ experiences of stress in the past few decades, it continues to be a construct of great interest.

What gives stress research sustained vitality is its profound effects on the individual and others. Decades of research have well documented the potential threats that chronic stress can pose to one’s physical and mental health (see reviews in Sapolsky, 2004; Schneiderman, Ironson, & Siegel, 2005). There is also substantial evidence that parents’ high stress can disrupt family functioning (McCubbin & Patterson, 1983) and take a toll on children’s development (Crnic & Low, 2002; Pett, Vaughan-Cole, & Wampold, 1994; Stone, Mares, Otten, Engles, & Janssens, 2015). Parents’ psychological distress, relational problems within the family, and ineffective parenting behaviors are often speculated as the main pathways through which parental stress undermines children’s wellbeing (Deater-Deckard, 1998; Masarik & Conger, 2017; Webster-Stratton, 1990).

Not all parents are equally well equipped to respond effectively to the stresses of parenthood. As I discuss in the next section, Lazarus and Folkman (1984) developed a detailed and influential conceptual model of the role of cognition and behavior in responding to stressful situations. A key aspect of this theory is the role of cognitive appraisal by the individual of his or her resources for contending with stressful circumstances. However, few empirical studies have included cognitive self-appraisal as a predictor of parents’ response to stressors associated with child rearing.

As discussed in Deater-Deckard (1998), researchers have primarily focused on examining whether causal relationships exist between parenting stress and poor parenting, and between poor parenting and child adjustment, as well as whether parenting behavior mediates stress and child outcomes. By “poor parenting”, Deater-Deckard refers to the frequently examined constructs of harsh discipline, low parental involvement, and parental negativity.

When empirical endeavors omit the cognitive component in the stress and coping process, they fail to capture the parent as “a thinking, planning, and goal-oriented individual” (Abidin, 1992, p. 410). These cognitive processes such as appraisal of the nature of a threat and of one’s resources are critically important in shaping the emotional response and the behavioral responses that parents may have to complex and difficult situations (Lazarus & Folkman, 1984; Abidin, 1992). There is preliminary evidence that family interventions targeted at parent cognition yielded results more lasting than other approaches (Deater-Deckard, 2004). The concept of parents’ self-appraisal process has great research potential but has been rarely examined in research on the effects of stressful conditions on parenting.

Another limitation of previous work on stress and parenting is that existing studies do not represent the full spectrum of parenting practices that can result from parenting stress. Broadening the research horizon is needed particularly considering the emerging evidence for varying experiences of individuals from different socioeconomic, ethnic and cultural backgrounds (Thoits, 2010). These individual and contextual differences in responses to stressful



conditions are of great importance in theoretical conceptualizations (Lazarus & Folkman, 1984) but have been largely neglected in empirical studies (Chun, Moos, & Cronkite, 2006).

The present study aims to fill these research gaps by exploring mothers' perceptions of stress in their daily lives and examining its association with their diminished sense of parenting competence and their engagement in permissive and inconsistent parenting.

A second purpose of this study to examine the variation in mothers' response to stress in three national contexts (China, Japan, and the US) that are known to differ in terms of the conditions of family life as well as in terms of certain parenting goals and behaviors. The literature on which the present study is based posits that stressful conditions are universally likely to result in some form of lower appraisal of parenting competence as well as increasing the likelihood of parents' use of permissive and inconsistent discipline as opposed to firm, consistent guidance. However, I am careful to acknowledge that each national setting offers certain conditions that may result in greater or less perceived stress, with associated effects on perceived parenting competence and parenting behavior. Thus, while the patterns of interconnection may be similar in each country, the salience and magnitude of particular elements may differ from one to the next.

In the following sections, I first introduce the theoretical models of stress in the parenting literature, highlighting the role of parent cognition in stress response. Within the theoretical framework, I then review the research and studies on the constructs of interest to illuminate their relationships and cultural significance. The analytical model and research methods are presented at the end.

### **Stress Theories and the Role of Parent Cognition**

The most cited conceptual models of parenting stress were mainly developed in the 1980s through the 1990s, many of which were heavily influenced by Richard Lazarus' pioneering work on stress. Lazarus's research was groundbreaking for its three major contributions. First, Lazarus introduced a more nuanced definition of the stress-producing events or stressors, moving beyond the earlier focus on catastrophic events and major transitions to include smaller daily events or "hassles", such as needing to run extra errands (Lazarus & Cohen, 1977). This revised conceptualization lends itself more readily to the study of parents' response to the everyday stressors associated with childrearing. Second, one important distinction Lazarus and Folkman make from the traditional "stimulus – response" model is to highlight the *transactional* nature of the stress and coping process. Stress is not simply a cause or a reaction; rather, stress is a process where the person-environment relationship is reciprocal and bidirectional. The resulting emotional, physiological, and behavioral reactions to stressors from Time 1, along with other cumulative stressors, are incorporated in the subsequent appraisal process at Time 2 (Lazarus & Folkman, 1984, pp. 325-326). Most importantly, a major contribution of their model is establishing the role of appraisal in stress and coping. Lazarus (1993) distinguishes physiological stress and psychological stress, emphasizing the role of "personal meaning" in the latter through appraisals. A typical stressful event entails two appraisal processes. The primary appraisal pertains to whether and to what extent the event can pose harm to the person's wellbeing. At this initial stage the individual is merely judging the event as posing a threat, a challenge, or a source of harm. A secondary appraisal is then initiated to gauge the resources available for dealing with the stressful circumstances, including one's own skills and knowledge as well as external resources such as assistance from others. It is the secondary appraisal that decides the subsequent coping efforts and in turn the emotional and behavioral outcomes of the stressful circumstances. In particular, if an individual appraises their resources as adequate, they are more likely to

proceed with planful and effective behavioral responses (i.e., coping strategies) to the stressful conditions. In my study, I propose to draw upon the notion of secondary appraisal to understand how mothers' appraisal of their own parenting competence (i.e., their parenting self-efficacy, to be discussed below) may mediate their daily experiences of stress and the consistency and firmness of their parenting behavior.

The basic concepts developed by Lazarus and his colleagues have been adapted to the context of parents' responses to stressful circumstances. For example, Webster-Stratton (1990) emphasizes the effects on parents of multiple stressors in the environment, including extrafamilial stressors (e.g., low SES, daily hassles), interpersonal problems within the family, as well as difficult characteristics of the child. The resulting cumulative stress is thought to undermine the "quality and sensitivity of the parents' interactions with their children ultimately contributing to child adjustment problems" (p. 303). This conceptual approach resonates with the models developed by Belsky (1984) and Abidin (1992) in terms of its recognition of the multifaceted nature of stressors and the influence on parental coping efforts of ontogenetic and environmental factors. Furthermore, Abidin (1992) emphasizes the role of parent cognition in stress and coping. Specifically, he identifies parent cognition as an important resource that mediates between parenting stress and parenting behavior.

The essential role of self-appraisal of resources is elaborated in another, complementary line of research on self-efficacy. According to Bandura (1982, 1989, 1997), self-efficacy, defined as one's perception of his or her ability to perform actions required to produce given attainments, may enhance or impair a person's functioning through cognitive, affective and motivational intervening processes. In response to stressful situations, efficacious individuals feel more confident in managing the challenges, and more likely to activate and mobilize their resources to exert coping efforts as well as persist in the face of difficulties. Self-efficacy as an anticipatory representation serves as a motivator and regulator of behavior.

Rather than a stable, general trait, self-efficacy is constructed and modified in a way specific to the domain of performance and the context. Changes in previous performance, vicarious experience, social persuasion, and emotional and physiological arousal can enhance or undermine self-efficacy beliefs (Bandura, 1977, 1997). Therefore, the perception of threat in a stressful situation, accompanied by bodily experiences of distress, is likely to lower one's expectancy of success, compared to situations absent of stressors. The reevaluation of physical and psychological resources and skills against environmental demands reflects the dynamic and transactional process of the individual's adaptation to stress. In accordance with Lazarus' work, Bandura's research provides additional theoretical and empirical support for the important role of self-appraisals in shaping an individual's response to stressful circumstances. However, it must be acknowledged that the chronic, cumulative, and pervasive stressors in family studies, such as financial hardship and child disability, are distinct from the simple stressors constructed in the experimental settings where early work on stress and self-efficacy was conducted. The complex stressors encountered in daily life have important and distinctive implications for individuals' stress and coping processes and thus are worth further research.

### **Research and Studies on Parenting Self-Efficacy in Stress and Coping**

According to Bandura (1997), individuals form a perception of their competence within specific domains of functioning such as athletics or academic achievement. Parenting self-efficacy (PSE) refers to parents' evaluation of their competence within the parenting domain. Within the theoretical framework on stress discussed above, it is reasonable to posit that parenting self-efficacy (i.e., appraisal of their parenting competence) may operate as an

important intervening factor between parents' stressors and their behavioral responses to those stressors.

### **PSE and Parent Functioning**

A large and growing body of literature suggests that overall, parenting self-efficacy is strongly correlated with parents' ability to create an environment conducive to children's development (Coleman & Karraker, 1997; Jones & Prinz, 2005). Stronger sense of parenting competence is correlated with fewer depression symptoms (Gondoli & Silverberg, 1997; Gross, Conrad, Fogg, & Wothke, 1994), and higher levels of parenting satisfaction (Hudson, Elek, & Fleck, 2001), parenting warmth (Teti & Gelfand, 1991), responsiveness (Gondoli & Silverberg, 1997), and involvement (Hoover-Dempsey, Bassler, & Brissie, 1992). In addition to parental well-being and positive parenting, a few studies have indicated a relationship between PSE and parents' coping styles. For instance, Dumka and his colleagues found that higher PSE was correlated with active coping among European American mothers and positive interpretation coping among Mexican American mothers (Dumka, Stoerzinger, Jackson, & Roosa, 1996).

While theoretical accounts tend to emphasize the impact of PSE on effective parenting, much of the empirical evidence is correlational and cannot demonstrate causality. Indeed, it is consistent with Bandura's theory of self-efficacy that parents' competent parenting as well as effective coping may result in raising PSE if their parenting efforts meet with successful outcomes (Jones & Prinz, 2005). For instance, parents who make good use of supportive resources, a positive way of coping, may ultimately experience higher PSE. In a qualitative study, parents of children with intellectual disabilities who drew upon information and treatment opportunities, sought social support, and engaged in self-care reported higher parental self-efficacy and confidence than those who did not access these forms of support (Taaniila, Syrjäälä, Kokkonen, & Järvelin, 2002). The relationship between coping and PSE is well aligned with the literature that documents how social support predicts higher PSE (Cutrona & Troutman, 1986; MacPhee, Fritz, & Miller-Heyl, 1996; Suzuki, 2010).

### **Parenting Stress, PSE, and Parenting Behavior**

While theoretical work has not clearly addressed the associations among parenting stress, PSE and parenting behavior, I offer a possible mechanism to explain this relationship.

PSE, or the appraisal of parent sources and competence, can operate as a mediator in the stress and coping process, demonstrating the environmental feedback to the individual via the secondary appraisal process. Specifically, PSE responds to the intensity of perceived stressors. Encounter of a stressful situation imposes new demands on a parent and may trigger a recalibration of their resources. Parents experiencing stressful situations may undergo decreased resources, including physical (e.g., lowered immune system), cognitive (e.g., decreased attention), and emotional changes (e.g., depressed mood). The increase of demands and decrease of resources may lead to a diminished sense of parenting efficacy, with an associated decrease in parenting effectiveness. For example, a mother who is preoccupied with financial problems may feel less able to devote time and energy to her child, or may worry that she will not have the resources to provide the child with a stable home, leading to a sense of low parenting self-efficacy, accompanied by a decrease in parenting competence. .

In fact, a number of empirical studies have shown a negative correlation between parenting stress and PSE. For example, a few parenting training studies showed positive intervention effects as indicated by lower parenting stress and increased PSE (Bloomfield & Kendall, 2012; Gross, Fogg, & Tucker, 1995; Keen, Couzens, Muspratt, & Rodger, 2010). Parents with difficult child or a child with disability also frequently report higher parenting stress

as well as low parenting self-efficacy (Kuhn & Carter, 2006; Spielman & Taubman-Ben-Ari, 2009).

Furthermore, results from a variety of studies conducted in the US suggest evidence for PSE as a mediator linking parental stress and parenting functioning or involvement. Giallo and her colleagues found that the effects of such factors as depression, child difficult temperament, and perceived stress had a negative association with PSE, which in turn was associated with lower parental involvement (Giallo, Treyvaud, Cooklin, & Wade, 2013). Similar findings on PSE mediating family stress and parental engagement were also reported in a study by Machida, Taylor and Kim (2002). In addition, Teti and Gelfand (1991) reported three factors, i.e., maternal depression, child difficulty, and low social-marital supports, that might contribute to observed ineffective parenting practices through the mediating role of PSE. In another study conducted by Jackson and Huang (2000), parents with fewer depressive symptoms and lower levels of stress reported higher PSE, which was also associated with positive parenting practices (warmth, structure and provision of intellectual stimulation at home). These studies have substantiated the stress – appraisal – behavior relationship in the parenting context.

A few other studies have tested an alternative role of PSE as a stress buffer. The moderating role of PSE was demonstrated in the study conducted by Raikes and Thompson (2005), where higher PSE helped parents reduce the stresses associated with family low income. In addition, Kwok and Wong (2000) found that PSE moderated the link between parenting stress and parent mental health with a sample of parents of young children in Hong Kong. Relatively few studies have examined the moderating effect of PSE. In a study on parenting during infancy, Leerkes and Crockenberg (2002) revealed that faced with challenging babies, mothers with a moderately high level of maternal self-efficacy were sensitive to infant needs, while mothers with low or extremely high levels of self-efficacy were adversely impacted by infant distress and showing decreased sensitivity.

Given the relatively more compelling theoretical and empirical support of PSE as a mediator, in the present study, I examine the mediating effect of PSE with respect particularly to parenting discipline. Additionally, I explore this mediation model in Chinese and Japanese samples, representing two national contexts where it has not previously been examined.

### **Two Forms of Parental Discipline: Permissive and Inconsistent Parenting**

A substantial body of research conducted with parents living in poverty and other stressful conditions has found links between parental stress within those contexts and their tendency to use harsh discipline (e.g., McLeod & Shanahan, 1993; McLoyd, 1998). However, few studies extend the inquiry to other dimensions of parental discipline. In the current paper, two patterns of parental discipline, inconsistent parenting and permissive parenting, are examined as indicators of parents' potential reactions to stressful conditions.

### **Conceptualizations of Permissive and Inconsistent Parenting**

The construct of permissive parenting originates from the typology of parenting styles developed by Diana Baumrind (1978, 1989), who defined it as a parenting style that is characterized by low demandingness and high responsiveness. According to Baumrind (1971, 1989), permissive parents tend to be noncoercive, accepting and warm towards children's impulses and desires; they make few maturity demands, allow children to regulate their own actions with little control, and tend to avoid disciplinary confrontations. This disciplinary style was influenced by the idea that children possess their natural tendencies and should not be prevented from expressing their capacity for self-actualization, as advocated by some early

philosophical orientations and the Children's Rights Movement in the early to mid-1900s' (Baumrind, 1971).

In contrast to the construct of permissive parenting that has a clear theoretical root and conceptualization, the idea of inconsistent parenting emerged more from clinical research, where Phillips and Johnston (1954) discovered that difficulty with applying firm and consistent discipline was a problem for most parents who visited their child guidance clinic. Rosenthal (1962, 1990) extended the research on inconsistent discipline, and proposed that mothers' feeling of guilt and their perception of discipline as hostility toward their children are the cause of inconsistent discipline; on the other hand, as a result of such inconsistent discipline, children tend to act out as attempts to search for stability and provoke strength from their mothers.

Later research further developed the idea of inconsistent parenting. In Holden and Miller (1999)'s summary, parental inconsistency can exist in forms of intraparental, interparental, and extraparental inconsistency. Inconsistency can also exhibit with regard to discipline, caretaking practices, expectations/beliefs, expression of emotionality, etc. (Carrasco, Holgado-Tello, & Serrano, 2015). Most studies have focused on intraparental inconsistent discipline. Inconsistent discipline is characterized by the fluctuating degrees of control parents use in their discipline, from no/little control to strict control.

Notably, in contrast to early work (e.g., Rosenthal, 1962; Stouthamer-Loeber & Loeber, 1986) that focused on the phenomenon of parents "giving-in", i.e., discipline sliding to the lenient end, most recent work examines harsh-inconsistent discipline. In fact, many studies have collapsed the concepts of harsh discipline and inconsistent discipline as they often coexist among parents who demonstrate irritability and psychological distress (e.g., Ge, et al., 1996; Santiago, Etter, Wadsworth, & Raviv, 2012). However, as harsh discipline is more prevalent among working class parents who tend to emphasize compliance and respect to authority and middle-class parents are less restrictive (Kohn, 1963), research on inconsistent discipline with middle or high SES parents may need to examine permissive-inconsistent parenting. It is also why in the current study, given the demographic profiles of the participants, inconsistent discipline is examined alongside permissive discipline.

### **Permissive and Inconsistent Discipline in the Family Context**

A few studies have revealed a positive correlation of inconsistent discipline with parenting stress (Lempers, Clark-Lempers, & Simons, 1989), maternal depression (Susman, Trickett, Iannotti, Hollenbeck, & Zahn-Waxler, 1985; Laskey & Cartwright-Hatton, 2009), and stressors such as poor marital relationship (Stoneman, Brody, & Burke, 1989). On the other hand, surprisingly, few earlier studies have examined the relationship between permissive parenting and stress. Emerging evidence has shown permissive parenting is associated with high-stress groups including parents of children with Down syndrome (Phillips, Connors, & Curtner-Smith, 2017), and parents whose children show severe involvement in bullying (Garaigordobil & Machimbarrena, 2017).

When parents are experiencing numerous or particular intense stressors, a shaken belief of their parenting abilities (i.e., low PSE) may make them more hesitant or reserved about exerting control and guidance over children's behavior, which may manifest as relinquishing control, as in permissive parenting, or fluctuating control, as in inconsistent parenting. Conversely, if they evaluate their own competence highly, they may be more likely to manage the anxiety and other debilitating emotions associated with stressful conditions to maintain a firm and consistent control over their children. Empirical research, albeit scarce, provides preliminary evidence that parents with higher PSE are less likely to treat their children in an inconsistent

manner (Dumka et al., 1996; Sanders & Woolley, 2005) and less likely to adopt a disengaged parenting style (Bogenschneider, Small, & Tsay, 1997; Shumow & Lomax, 2002). Although most existing studies use cross-sectional design, Dumka and his colleagues (Dumka, Gonzales, Wheeler, & Millsap, 2010) conducted a study that used longitudinal cross-lag panel design and revealed that earlier PSE predicted later parental positive control but not the opposite. This study provides valuable insights into the causality of the PSE-parenting behavior relationship.

It is important to study the conditions associated with parental permissiveness and inconsistency because at least some studies conducted within the US show that inconsistent parenting (e.g., Gardner, 1989; Patterson, 1986) and permissive parenting (Baumrind, 1971; Dornbusch et al., 1987) were associated with child maladjustment, although others did not (e.g., Shumow, Vandell, & Posner, 1998). However, as I will argue subsequently, there may be national or cultural differences in the prevalence of these particular forms of parenting; whether or not they are differentially associated with stressful conditions is one question that is addressed in my study.

### **Response to Stressful Situations in Socioecological Context**

As I have discussed, transactional models of parents' response to stressful conditions acknowledge that each facet of this dynamic process is subject to a host of individual and environmental factors, as suggested by theories on parental stress (Abidin, 1992; Belsky, 1984; Deater-Deckard, 2004; Webster-Stratton, 1990). The objective conditions from multiple domains of one's life may collectively contribute to a "pile-up" of stressors, including personal characteristics of the parent (e.g., poor health) as well as the quality of interpersonal relationships within or outside of the family. The appraisal process is also influenced not only by assessment of resources associated with proximal factors such as personal characteristics or family background, but may also with distal factors including individual's cultural beliefs (e.g., a fatalistic belief about the power of parents to affect a child's academic potential). This layered influences on the individual are depicted in the bioecological model by Bronfenbrenner and Morris (2007).

While it seems likely that these proximal and distal features differ in frequency and intensity across the three sociocultural contexts of interest in the present study, as I have already noted, a central question concerns the extent to which the patterns linking stressful conditions, parenting self-efficacy, and permissive/inconsistent parenting are similar across the three countries.

### **Child Characteristics**

It is repeatedly shown that parents of children who have difficult temperament (Anthony et al., 2005; Östberg & Hagekull, 2010), more behavioral problems (Mash & Johnston, 1983; Neece, Green, & Baker, 2012), lower social competence (Anthony et al., 2005), as well as illness and disabilities (Anastopoulos, Guevremont, Shelton, & DuPaul, 1992; Goldberg, Morris, Simmons, Fowler, & Levison, 1990) report higher levels of stress compared to their counterparts. These child characteristics often make the childcare activities more complicated or challenging, and thus are also typically associated with lower PSE (Coleman & Karraker, 1997; Jones & Prinz, 2005). Research on parent training also have documented that parents who benefited from parenting intervention tend to report more positive perceptions of their children as well as enhanced confidence in the parenting role (Feldman & Werner, 2002). In addition, there is evidence that mothers of boys tend to report higher levels of stress than mothers of girls (Barroso, Mendez, Graziano, & Bagner, 2018; Vierhaus, Lohaus, Schmitz, & Schoppmeier, 2013).

As noted by Belsky (1984), findings from survey and observational studies reveal that parents tend to be less responsive and show more parental negativity in their parent-child interactions if their children are rated as more difficult. These findings imply that child characteristics may also affect parent control behaviors. It is thus important to take into account of child characteristics in the effort to understand how parents process and respond to stressful situations. In the present study, child social competence is entered in the analysis as a control variable.

### **Parent and Family Characteristics and Conditions**

Numerous studies in a variety of countries have found that families living in conditions characterized by fewer resources and greater responsibilities are more likely to experience stress associated with parenting. For instance, with a representative sample of Swedish mothers, Östberg and Hagekull (2010) found that mothers who were more stressed reported less social support, more childcare hassles and negative life events, had more children, worked longer hours outside the home, and were older than their less stressed counterparts. Similarly, Belsky (1984) noted that lack of social support from spouse and friends is associated with greater stress in parents living in the US. Thoits (2010) in her review pointed out individuals from disadvantaged socioeconomic backgrounds were exposed to more stressors than their counterparts. Family economic pressures as well as poor parental mental health both contribute to high levels of stress (Duncan & Brooks-Gunn, 2000; McLoyd, 1990; Sameroff & Fiese, 2000).

Studies have also shown that many stress-inducing factors such as maternal depression (Gondoli & Silverberg, 1997; Gross et al., 1994), low marital satisfaction (Sevigny & Loutzenhiser, 2009), and socioeconomic disadvantage (Raver & Leadbeater, 1999) can also lead to a diminished sense of parenting efficacy. In addition, parents with higher levels of stress also tend to report lower PSE (Fox & Gelfand, 1994; Kohlhoff & Barnett, 2013; Reece & Harkless, 1998).

While many studies find that lower SES parents are more likely to be authoritarian than those from higher SES backgrounds, relatively few studies have examined the association between family SES and in permissive parenting and inconsistent parenting. One of the exceptions is that permissive discipline was found more prevalent among African American mothers with lower education and family income than their middle-class counterparts (Bluestone & Tamis-LeMonda, 1999; Querido, Warner, & Eyberg, 2002). Similarly, based on a large mixed-race sample, Dornbusch et al. (1987) found that parents of adolescents with low education reported a significantly higher level of permissive parenting than parents with middle or high education. In a study conducted by Hoffman and Youngblade (1999), both low-SES and middle-SES families, working parents were less likely to indicate high levels of permissiveness. However, some other studies did not find a clear relationship between permissive parenting and SES (e.g., Shumow et al., 1998). Furthermore, a limited number of studies that examined inconsistent discipline have shown similar results, indicating its prevalence in low-SES families (e.g., Dwairy, 2010; Grant et al., 2005). Taken together, preliminary evidence from these studies suggest the possibility that socioeconomically disadvantaged families are at greater risks of using both permissive and inconsistent discipline.

Given the importance of firm control as a component of effective parenting, it is thus important to address this gap in the literature exploring the family characteristics associated with firm vs permissive and inconsistent parenting.

### **Cultural Context**

The cultural context represents a dynamic system of activities, values, and resources (Holloway & Kunesh, 2015). In a broad sense, a cultural setting is shaped by many factors including its physical ecology, economy, and social policies and institutions (Gjerde, 2004). At the level of individuals, cultural processes are implicated in the cognitive, motivational, affective and behavioral components of parenting and family life. Cultural context plays a role in the stress and coping process as well. The particular conditions within a cultural setting shape the array of possible stressors affecting families, as well as the resources upon which they can call for assistance. In the appraisal process, the interpretation and response to stressors is construed partly based on cultural knowledge, values, and norms. Moreover, culture processes may also directly or indirectly decide the organization and availability of coping resources. Despite the integral role of culture in stress theories, there is a paucity of cross-cultural empirical work that focuses on possible cultural variations in terms of parents' response to stressful conditions in daily family life (Chun et al., 2006).

In the present study, I explore cross-national patterns in the relationship among perceived stressful conditions, parenting self-efficacy, and parents' use of permissive and inconsistent discipline. I analyze survey data collected from parents of young children in three countries, China, Japan and the United States. To facilitate understanding of the data and subsequent interpretations, I will provide an overview of the context of childrearing in each of the focal nations as well as a review of empirical studies related to the constructs of interest in those countries.

### **Parental Involvement in Children's Early Education**

National differences in the primary education context place different sources of pressure on parents as well as their young children. One central dimension differentiating these contexts is the extent to which a child's ultimate educational trajectory is determined by very early (i.e., preprimary) academic performance. In China, where admission to highly ranked elementary schools in urban areas is determined by examination, many parents feel a great deal of pressure to begin their children's academic preparation in the preschool years through enrollment in a variety of supplementary classes and lessons (Kipnis, 2012; Xu, 2017). Although Japanese families developed a reputation in the 1970s for strong support of children's early education, parents' educational expectations have declined relative to those years, particularly for girls, due to decades of economic decline and concomitant loss of faith in the power of a university degree to convey professional benefit (Holloway, 2010). And while many parents of young children in the US have become somewhat more focused on early academic performance in concert with increased societal emphasis on learning in the early years, I would argue that the nature of public schooling in China, in which student rankings are available since elementary school, appears to contribute to particularly intense pressure in the early years relative to other countries. A second difference pertains to national variation in the culturally constructed role of mothers vs. fathers in their supporting children's educational attainment. Sociocultural studies of parenting suggest that Japanese mothers may feel particularly responsible for supporting their children's education and development (Holloway, 2010; Lewis, 1995). Although an increasing number of Japanese women are balancing childrearing with labor force participation, they are still less likely than Chinese and American mothers to work outside the home when their children are young. Japanese preschools and elementary schools tend to make a significant number of demands on mothers' time, including volunteering at the school site. Women who do not meet these stringent expectations tend to engage in serious self-recrimination as well as meeting with



social criticism from other family members as well as members of the educational community (Suzuki et al., 2009). Time-use studies across a variety of Western and Asian countries find that Japanese men, on the other hand, tend to be among the least engaged fathers (Inoue & Ehara, 1999; Makino, Watanabe, Funabashi, & Nakano, 2010). In contrast, Chinese and American fathers appear to be more likely viewed as making an important contribution to their children's daily life and long-term prospects, thereby sharing the praise as well as criticism resulting from their children's wellbeing (Li, 2013; Li & Lamb, 2015). Moreover, many Chinese families include the grandparents as well, who offer significant help with child and household care (Chen & Silverstein, 2000).

### **Parenting Self-Efficacy**

The construct of self-efficacy as articulated by Bandura is seen as flowing directly from pan-human competence in monitoring and assessing performance on valued activities. While the conditions that foster or erode PSE may fluctuate across cultural settings, the patterns linking these conditions to PSE and to its emotional and behavioral sequelae are not expected to vary substantially (Bandura, 2002). Nevertheless, some theorists have questioned the importance of individual judgments of self-efficacy in societies that are typically described as collectivistic (Heine, Lehman, Markus, & Kitayama, 1999; Heine, Takata, & Lehman, 2000).

However, subsequent qualitative and quantitative studies in Japan have provided evidence to the contrary, finding that PSE was associated in the theoretically predicted direction with contextual features including social support from spouse, friends, and extended family, and it was in turn negatively associated with reported "daily hassles" (Holloway, Suzuki, Yamamoto, & Behrens, 2005; Suzuki, 2010; Suzuki et al., 2009). Japanese mothers who expressed higher self-efficacy were less likely to invest in lessons and tutors for their young children but more likely to report engaging in cognitive stimulation at home (Holloway, Yamamoto, Suzuki, & Mindnich, 2008; Yamamoto, Holloway & Suzuki, 2006; Holloway et al., 2005). Furthermore, cross-cultural comparative studies found that Japanese mothers, commonly portrayed as ideal wives and mothers though, reported lower parenting self-efficacy than their American counterparts, which is attributable to lack of social support, cultural expectations of mothers and constraints from family policies and career options (Bornstein et al., 1998; Holloway, 2010; Suzuki, Holloway, Yamamoto, & Mindnich, 2009).

The emerging literature on PSE with Chinese participants has shown that PSE is a valid parenting construct that operates similarly as in other cultural contexts. Chinese mothers who are more efficacious tend to have higher levels of marital satisfaction (Kwan, Kwok, & Ling, 2015; Zhang, Li, Bai, & Chen, 2017), more social support (Gao, Sun, & Chen, 2014), better mental health (Kwok & Wong, 2000), and lower parenting stress (Lai, 2007; Ngai & Chan, 2012). In a study with 504 Hong Kong families in poverty, Yeung and Chan (2011) found that PSE, along with parenting stress, fully mediates the association between family stressors and family functioning. Kwok and her colleagues argue that Chinese parents' childrearing efficacy may rely more on children's achievements than parent-child relationship as found in the Western culture (Kwok, Cheng, Chow, & Ying, 2015), but this speculated cultural difference needs more substantial empirical support.

### **Parenting Permissiveness and Inconsistency**

Parenting behavior may be attached to different meanings congruent with its cultural norms. In general, Chinese and Japanese mothers may show more permissiveness compared to American mothers, perhaps indicating cultural norms that permit more freedom and indulgence for young children (Azuma, 1986; Ho, 1986; Power, Kobayashi-Winata, & Kelley, 1992).

Accordingly, permissiveness has been found to be associated with negative child outcomes in U.S. samples (Baumrind, 1971; Dornbusch et al., 1987), but studies have failed to find a similar pattern in Chinese samples (Huang & Prochner, 2003; Chen, Sun, & Yu, 2015), or in Japanese samples (Lau, 2006; Power et al, 1992; Uji, Sakamoto, Adachi, & Kitamura, 2014).

While consistency in parenting behavior over time and across caregivers is often touted in the popular parenting literature as a virtue (Cedar, 2019), relatively few studies have focused on its effects on children's development. There is some indication in the anthropological literature on Japanese child rearing that parental "inconsistency" is actually a way of teaching children the importance of aligning one's behavior with the specifics of a given social context (Bachnik, 1992). For the parent, as for the child, remaining consistent across situations is less important than behaving in accordance with the norms demanded by the presence or absence of family members, for example.

However, empirical studies in several countries find negative effects on children of inconsistent parent control. In the US, Landry and her colleagues reported that children of parents who are consistently responsive throughout childhood showed faster rates of cognitive and social growth, compared to those whose parents demonstrated inconsistent or minimal responsiveness (Landry, Smith, & Swank, 2011). Dwairy (2008) also reported a significant correlation between parental use of inconsistent discipline with child psychopathology among Arabic-speaking children, after controlling for parent authoritarianism. In addition, a study in Japan found that parental inconsistency was related to increased depression symptoms in Japanese children (Yoshizumi, Murase, Murakami, & Takai, 2006). In interviews with Chinese teachers, Chinese preschool teachers seemed to endorse consistent discipline and believed inconsistency might lead to confusion (Tobin, Wu, & Davidson, 1991). These cultural similarities and differences have driven our decision to focus on a cross-cultural comparison of the mediating processes between parental stress and parental discipline.

### **The Present Study**

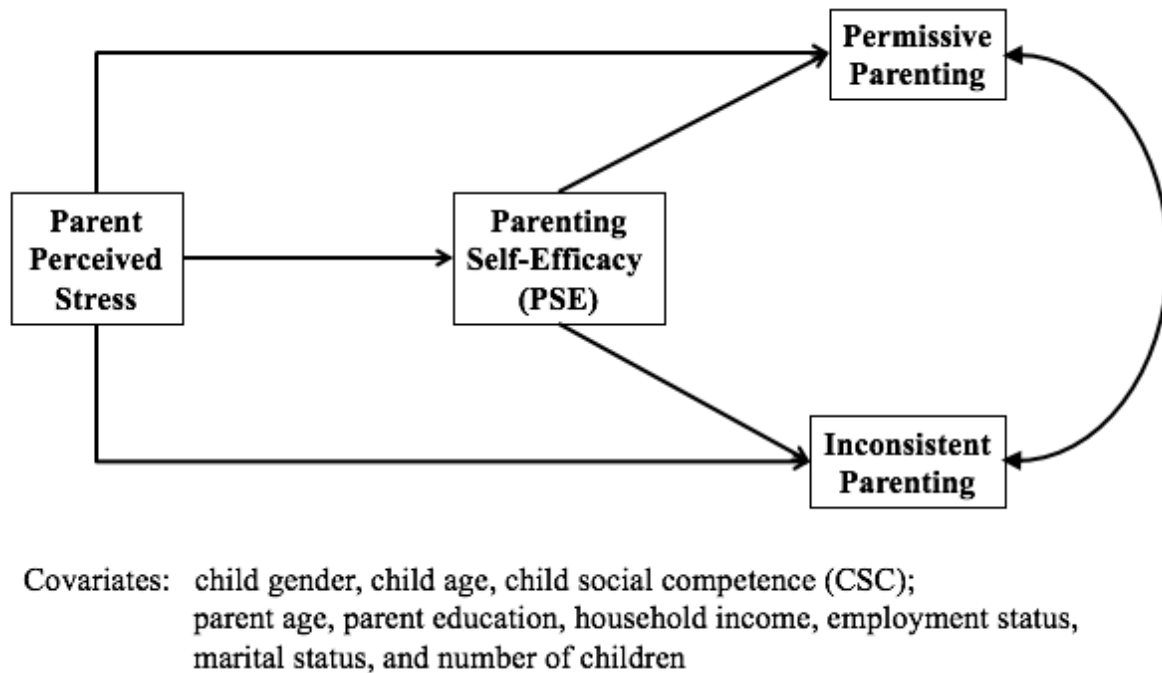
Informed by the theories and empirical findings on parents' stress and coping processes, the present study aims to answer four research questions. First, the first goal of this study is to examine the impact of heightened parenting stress on parents, i.e., whether increased parenting stress leads to diminished sense of parenting competency and more engagement in parenting permissiveness and inconsistency. As discussed above, there has been consistent evidence for a negative association between parenting stress and PSE (Fox & Gelfand, 1994; Kohlhoff & Barnett, 2013; Reece & Harkless, 1998), whereas the exploration of parenting permissiveness and inconsistency as potential responses to parenting stress is a novel tack.

Similarly, in the line of research on PSE, little is known about the link between permissive or inconsistent parenting behavior and PSE. It is thus the second goal of this study to investigate whether and how efficacious mothers manifest different levels of permissiveness and inconsistency than mothers who are less efficacious.

A central goal of this study is to examine the mediating role of parenting self-efficacy (PSE) as a cognitive resource that mitigates the effects of stress on maladaptive parenting control behavior, indicated by permissive and inconsistent parenting. Given the pervasive effects of stress on people through physical, psychological and systemic mechanisms, the potential mediating effect of PSE may provide one of the psychological explanations that partially account for parents' behavior induced by high stress.

Furthermore, the availability of three samples from the US, Japan and China in this study affords a unique opportunity to understand these research inquiries stated above. I attempt to test

and interpret the consistencies and variations of the links between perceived stress, PSE and parenting behaviors in relation to their respective cultural context.



*Figure 1*  
Diagram of Proposed Path Model

The diagram in Figure 1 delineates the hypothesized relationships between parent stress, PSE, permissive and inconsistent parenting. It represents a process of responding to stressful conditions that consists of affective, cognitive and behavioral components.

Overall, based on the literature reviewed previously, I hypothesize that after controlling for demographic variables and child competence, the relation of parental stress, PSE, and parenting behavior will be similar in all three countries in terms of valence and magnitude. In particular, I expect that

- 1) High parental stress is correlated with low PSE;
- 2) Mothers' perceived stress is positively correlated with permissive parenting;
- 3) Mothers' perceived stress is positively correlated with inconsistent parenting;
- 4) PSE is inversely correlated with permissive parenting;
- 5) PSE is inversely correlated with inconsistent parenting;
- 6) PSE mediates between parent perceived stress and permissiveness;
- 7) PSE mediates between parent perceived stress and inconsistency;
- 8) PSE mediates parent stress and permissiveness/inconsistency across all three samples but its link with permissiveness may be weaker among Chinese and Japanese mothers.

## Method

### Participants

Parenting survey data was collected in three countries: China, Japan and the United States. All participants were parents of 1<sup>st</sup> and 2<sup>nd</sup> graders in elementary schools. In all three samples, most participating parents were mothers, accounting for 70.7% of the Chinese sample, 95.0% of the Japanese sample, and 85.3% of the American sample. Because of the potential gender effect in stress coping (Shek, 1992) and that mothers are the primary caregivers in all three countries, the current analysis only included data from mothers.

The Chinese sample was comprised of 113 mothers ( $M_{age} = 35.2$  years,  $SD = 3.5$ ) in Nanjing, a major city in Eastern China with its GDP (gross domestic product) ranked 11<sup>th</sup> among Chinese mainland cities (National Bureau of Statistics of China, 2015). The elementary school where recruitment was carried out was a public school that serves a diverse student population. Among the Chinese focal children, 54.0% were girls, and 50.0% were 1<sup>st</sup> graders. The age of all children ranges from 75 to 100 months, with  $M_{age} = 86.4$  months,  $SD = 7.3$ . Participants were recruited from two classrooms from each grade respectively. Most mothers in the Chinese sample received college education (i.e., 78.1% with some college or a college degree) and indicated medium or high income (i.e., the annual house income of 81.8% of families is more than 90000 RMB), which marks a higher socioeconomic level than the local residents. In Nanjing city, the average annual household disposable income in 2014 was approximately 120,000 RMB, and about 35.3% of residents had an associate degree or higher (Nanjing Municipal Statistics Bureau, 2015, 2016).

In the Japanese sample, 262 mothers ( $M_{age} = 38.7$  years,  $SD = 4.0$  years) were recruited from 21 classrooms in four elementary schools in the Tokyo metropolitan area. Their children (51.0% girls and 52.9% 1<sup>st</sup> graders) had an average age of 82.9 months ( $SD = 6.9$  years). Most participating Japanese mothers earned their highest degree from a college or junior college/vocational school (30.4% and 43.1% respectively). The annual household income of approximately a third (35.4%) of Japanese mothers was below 6 million JPY, and 42.1% in the medium range with income between 6 million and 10 million JPY. Given that 51% of area residents had completed a high school degree or less, and the median annual household income was between 6 to 7.99 million yen (Statistics Bureau of Japan, 2015), the Japanese sample represents a higher socioeconomic group than the average.

Finally, 256 mothers ( $M_{age} = 40.6$  years,  $SD = 5.6$ ) who lived in the San Francisco Bay Area in North California constituted the U.S. sample. The racial diversity of the Bay Area was well represented by the racial composition of this sample: 50% of the mothers were White, 26.8% Asian, 7.9% Latino/Hispanic, 5.5% Black, and 9.8% mixed race. Among the American focal children, 53.4% were girls and 52.7% were in the 1<sup>st</sup> grade. Their ages ranged from 77 to 112 months, with  $M_{age} = 90.0$  months,  $SD = 7.1$  months. Students came from 47 classrooms from eight schools. The US mothers who participated this study were highly educated, with 42.7% holding a graduate or professional degree and 38.4% of mothers having a bachelor's degree; and more than half (53.8%) reported annual household income as over 100,000 USD. The US sample is socioeconomically more advantaged than local residents, considering the median annual household income of local residents were between 70,500 to 81,609 USD and 36.6% to 49.8% of female residents between the age of 35 and 44 hold a bachelor degree or higher in 2012 (US Census Bureau, 2012).

Table 1  
*Major Demographic Information of the Three Samples*

	China (n = 113)	Japan (n = 262)	United States (n = 165)
<b><i>Mothers</i></b>			
Age in years	35.24 (3.51)	38.72 (4.05)	40.64 (5.61)
Number of Children	1.26 (0.50)	2.11 (0.79)	2.06 (0.71)
Education			
High school graduate, GED or lower	15 (14.3%)	61 (24.1%)	8 (4.9%)
Some college, vocational school, or junior college	34 (32.4%)	109 (43.1%)	23 (14.0%)
Bachelor's degree	48 (45.7%)	77 (30.4%)	63 (38.4%)
Graduate or professional degree	8 (7.6%)	6 (2.4%)	70 (42.7%)
Annual household income			
Low income	16 (18.2%)	69 (35.4%)	24 (15.4%)
Medium income	33 (37.5%)	82 (42.1%)	48 (30.8%)
High income	39 (44.3%)	44 (22.6%)	84 (53.8%)
Not employed outside the home	23 (22.1%)	105 (41.7%)	31 (19.0%)
Not married nor in a stable relationship	5 (4.5%)	20 (8.1%)	17 (10.4%)
<b><i>Children</i></b>			
Girl	61 (54.0%)	133 (51.0%)	87 (53.4%)
Age in months	86.43 (7.26)	82.86 (6.93)	90.02 (7.12)
1 <sup>st</sup> Grader	57 (50.4%)	138 (52.9%)	87 (52.7%)

*Note:* Low income = below 90,000 RMB, 6 million JPY, or 50,000 USD;  
 High income = over 200,000 RMB, 10 million JPY, or 100,000 USD.

Table 1 summarizes the demographic information of the three samples. It shows that, although all the mothers lived in affluent major cities and consistently represent a higher SES status than local residents, there are some demographic differences. The US sample appears to be the group that, on average, is the oldest and the most well-educated; its annual household income distribution is comparable to that of the Chinese sample, and both are higher than their Japanese counterparts. Similar to the Chinese sample, the US sample had about 1/5 mothers who were not employed outside the home, far less than the proportion (41.8%) in the Japanese sample. Single mothers account for a small proportion in all three samples, with the Chinese sample at the lowest rate (4.2%) and the US sample at the highest (11.4%). Nearly half of the focal children in each sample were girls, and the distribution was also very even between two grades. However, American children on average were the oldest, followed by the Chinese children. In general, the US sample appears to be more demographically similar to the Chinese sample than to the

Japanese sample. The disparities in the backgrounds of the three samples further led to the decision to conduct analyses separately for each group.

### Procedure

As part of a large project that aims to validate a parenting self-efficacy scale for parents from different cultural backgrounds, this study uses survey data collected from China, Japan and the U.S. To ensure the consistency of the research procedure, very similar steps at the research sites were followed. Specifically, the research team first reached out to the principals of several elementary schools and obtained their permission to conduct a research study at their school. With the support of the principals, an invitation letter was sent to the parents of children in the 1<sup>st</sup> and 2<sup>nd</sup> grade. When parents agreed to participate and returned their signed consent form, the research team distributed the questionnaires to the participating parents. Because of the need for a test-retest validation procedure, two surveys were sent to parents, 6-8 weeks apart. The first survey was administered in January of 2012 in the U.S., in October of 2012 in Japan, and in November of 2014 in China. Parents returned the surveys in a sealed envelope to the classroom teacher or directly mailed them to the local research team. In addition to the parent survey, teachers also filled out a short questionnaire to rate the school-related social competence for each participating child based on their performance at school. After completion, participating parents and teachers received a small gift or a gift card from the research team.

### Measures

All surveys were administered in each country's official language. Because all measures were originally developed in the US and published in English, the surveys were translated to Japanese and to simplified Chinese. To ensure the translation accuracy, the surveys were translated and back-translated by bilingual research assistants and reviewed subsequently by the whole team to resolve discrepancies. Table 2 includes the Cronbach's alpha for each measure in each country.

Table 2

*Internal Consistency (Cronbach's Alpha), Mean and Standard Deviation of Key Variables in the Three Samples*

Measure	China (n = 113)	Japan (n = 262)	United States (n = 165)
<b>Parental Stress</b>	$\alpha = .75$	$\alpha = .83$	$\alpha = .89$
Mean	2.58	2.45	2.32
SD	.43	.58	.62
<b>PSE</b>	$\alpha = .93$	$\alpha = .92$	$\alpha = .95$
Mean	4.20	3.59	4.75
SD	.70	.63	.65
<b>Inconsistency</b>	$\alpha = .74$	$\alpha = .67$	$\alpha = .80$
Mean	2.64	2.81	2.21
SD	.69	.63	.82
<b>Permissiveness</b>	$\alpha = .65$	$\alpha = .66$	$\alpha = .79$
Mean	2.54	2.08	1.84
SD	.65	.60	.62

Note: SD = standard deviation

**Parent Perceived Stress.** The 10-item Perceived Stress Scale (PSS-10) by Cohen, Kamarck and Mermelstein (1983) was included in the second survey to measure parents' perception of stress. Parents rated how often they experienced the situations that were demanding and beyond their control last month. For example, "In the last month, how often have you been angered because of things that were outside of your control?" The rating ranges from 1 = *Never* to 5 = *Very Often*. The PSS-10 has been validated and used across many countries. Specifically, in the US, studies with nationally representative adult (age 18+) samples indicate good internal validity with Cronbach's alpha ranging from .78 to .91 (Cohen & Janicki-Deverts, 2012; Cohen & Williamson, 1988). In several studies conducted in China (Bao, Xue, & Kong, 2015; Lu, et al., 2017; Wang et al., 2011), the PSS-10 also showed good validity and reliability with Cronbach's alpha greater than .85. Similarly, the PSS-10 Japanese version was validated in a study with hundreds of undergraduate and graduate students (Sumi, 2006) with a Cronbach's alpha of .71. Although some studies (e.g., Lu, et al., 2017; Roberti, Harrington, & Storch, 2006; Wang et al., 2011) showed a two-factor structure for PSS-10 while others (e.g., Bao et al., 2015) indicated a one-factor structure, given that the correlations between the two factors were consistently found high and in the same direction, in this study, the average of all scores were calculated as a proxy for parents' perceived stress.

**Parenting Self-Efficacy.** Parents in this study rated their parenting self-efficacy using the Berkeley Parenting Self-Efficacy Scale – Revised (BPSE-R) Primary School Form (Holloway et al., 2019). This 22-item scale was developed based on qualitative and quantitative research conducted in Japan and the U.S., and has shown satisfactory validity and reliability with two subscales in those two samples. The Parental Strategies subscale is composed of seven items that measure the parent's confidence in engaging in positive parenting behaviors (e.g. Understanding my child's feelings); and the Child Outcomes subscale includes 15 items that focus on the parent's confidence in helping his or her child achieve important health, academic and social outcomes (e.g., To get enough sleep; To get along with other children). Responses were rated on a 6-point Likert scale, from 1 = *Not confident at all*, to 6 = *Completely confident*. In the present study, the BPSE-R scale also showed good internal consistency in all three samples, with  $\alpha \geq .92$ . Psychometric analysis in Holloway et al. (2019) suggested a two-factor structure for BPSE-R; however, the average score of the entire scale showed very similar theoretical correlates to those of the two subscales, supporting the use of the scale in its entirety. In this study, I use the mean score of the BPSE-R scales from both the first and the second surveys to obtain an index of PSE during the data collection stage.

**Parenting Behavior.** The two aspects of parenting behavior, permissiveness and inconsistency, were measured using two subscales of the Weinberger Parenting Inventory – Parent Version (WPI-PAR; Weinberger, Feldman, & Ford, 1989). The 6-item Permissiveness subscale captures the situations where the parent demonstrates lax control. Parents rated how often they acted as described on a 5-point scale, from 1 = *Almost never* to 5 = *Almost always*. The WPI-PAR was part of the first survey. As shown in Table 2, the two subscales of WPI-PAR showed good internal consistency in the current study: the Cronbach's alphas of both subscales were equal to or above .65 in all three samples. Several studies conducted in the US (Heidgerken et al., 2004; Kriebel & Wentzel, 2011; Wentzel et al., 1991) indicated good internal consistency ( $\alpha \geq .76$ ) for the two subscales of focus; however, the WPI-PAR has not been found used with Chinese or Japanese participants. In this study, the mean scores in both subscales were derived as the indices for parenting permissiveness and inconsistency, respectively.

**Child Social Competence (CSC).** Teachers completed the 25-item Social Competence Scale – Teacher Version (Conduct Problems Prevention Research Group, 1990) for each focal child. It asked the teacher to rate to what extent the child’s behavior fit each description on a 5-point scale (1 = *Not at all*, 5 = *Very well*). The items assess children’s school-related social competence in three aspects, i.e., emotional regulation (e.g. “Copes well with failure”), prosocial behavior (e.g., Act friendly toward others), and self-regulation in academic settings (e.g., “Functions well even with distractions). To my knowledge, the Social Competence Scale has only been used in the US. The researchers who developed this scale indicated good validity and significant correlations between child social competence score with social skills deficits and inattention (Farmer, Bierman, & The Conduct Problems Prevention Research Group, 2002). The composite of child social competence was calculated as the mean score of this scale.

**Demographic Variables.** All participants were asked to fill out the focal child’s birth month, year, along with the report of participant’s age, relationship to the focal child, and the number of children they had. In addition, participants indicated their education, occupation, annual house income and relationship status. In the survey, there were originally six categories for parents’ education, i.e., No formal schooling; 11<sup>th</sup> grade or less; High school graduate (12<sup>th</sup> grade), GED or equivalent; Some college, vocational school, or junior college; Bachelor’s degree (college graduate); Graduate or professional degree. In the analysis, partly due to the small number of participants who received less than high school education, the first three categories were combined as “High school graduate or less”. The variable of parent education was then classified into four standard categories.

In the questionnaires, there were eight to ten categories in the question regarding parent’s income, in addition to the option of “unsure” and a space where participants could add comments or a free response. These categories were informed by the local demographic statistics and aim to reflect the range of annual household income for local residents. Because all three samples were collected in affluent cities where living expenses were higher than the national average, the income in each sample was trichotomized based on the distribution of the original eight to ten categories of income in the survey. The resulting new categories may reflect the family’s financial situation in its own city more accurately. The new income variable has three levels, i.e., low, medium, and high income. However, there is possibly a ceiling effect exhibited in the China and the U.S. samples, given that 44.3% of Chinese mothers and 53.8% of American mothers indicated their annual household income was over 200,000 RMB and over 100,000 USD.

Participants also were asked to indicate their occupation by choosing from 12 common categories, or specify their vocational information in a space followed by the “Other” option. One of the 12 categories is homemaker. Using information from this item, a variable of employment status was created to indicate whether mothers were employed outside of home. Lastly, one of the survey questions asks whether participants are married/in a stable relationship.

Informed by previous research, a total of eight demographic variables were added to the analysis as control variables, including child’s gender, age, and mother’s age, education, employment status, marital status, number of children, and annual household income. All categorical variables were recoded and entered the analysis as binary variables, with boy, high school graduate or less, homemaker, single mother, low income as the omitted reference group.

### **Analytical Plan**

Step 1: Using SPSS 19.0, I first generated the descriptive statistics (mean, SD, range, frequency, skewness, kurtosis) for all the variables in each sample to examine their patterns of distribution. I then converted categorical variables to binary variables.



Step 2: Zero-order correlations between the key variables and the covariates in each sample were generated in SPSS. Demographic variables (i.e., child's gender, age, and mother's age, education, employment status, marital status, number of children, and annual household income) and teacher-rated child social competence were covariates.

Step 3: I then conducted path analysis to test the proposed model (presented in Figure 1) separately in each sample, controlling for the covariates. Analyses were performed in Mplus 6.12 with robust maximum likelihood (MLR) estimator using raw data. Because classroom teachers rated numerous students' CSC and the observations are not independent samples, student's classroom was incorporated as a cluster indicator, an approach suggested by Lai and Kwok (2015) for analyzing nested data. To produce the most parsimonious models, covariates that did not show statistically significant coefficients with key variables were pruned one at a time, starting with the covariate that shows the least significance (i.e., largest p-value). In addition, to avoid listwise deletion due to the missing data on covariates, the variances of covariates and the exogenous variable (i.e., parental stress) were added into the estimation. Results, including model fit statistics, path coefficients, R-square, were reported.

Step 4: To test the mediating effect of PSE, the total, direct and indirect effects of PSE were tested with relation to permissive parenting and inconsistent parenting as outcome variables. The Mplus program uses Sobel's test (1982) for testing the mediational relationships.

## **Results**

### **Preliminary Analysis**

The descriptive statistics of the key variables in the hypothesized model are listed in Table 3. Using the criteria (skewness  $\leq 2$ , kurtosis  $\leq 7$ ) suggested by West, Finch and Curran (1995), all key variables were considered normally distributed in the three samples.

Table 3  
*Zero-Order Correlations of the Study Variables in the Chinese Sample*

China	1	2	3	4	5	6	7	8	9	10	11	12
1 Child gender	--											
2 Child age	-.04	--										
3 Mother age	-.08	.15	--									
4 Mother education	-.00	-.07	-.06	--								
5 Family income	.01	-.10	.00	.22	--							
6 Employed	-.17	-.02	.12	.22*	-.23*	--						
7 No. of Children	.05	-.02	.22*	-.29**	.08	-.19	--					
8 Married	-.12	.10	-.04	-.09	.23*	.10	.11	--				
9 CSC	.28**	.08	.09	-.00	-.01	-.02	-.12	-.00	--			
10 Mother Stress	.04	-.03	-.08	-.13	-.30**	.15	.01	-.02	.06	--		
11 PSE	-.01	.05	.16	.08	.13	-.13	.06	.06	.13	-.43***	--	
12 Inconsistency	-.06	.20*	-.02	-.13	-.30**	.06	-.03	-.02	.00	.17	-.23*	--
13 Permissiveness	-.15	.03	.06	.20*	.02	.27**	.01	.01	-.03	.20	-.04	.33***

*Note:* PSE = parenting self-efficacy. CSC = child social competence. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 4  
*Zero-Order Correlations of the Study Variables in the Japanese Sample*

Japan	1	2	3	4	5	6	7	8	9	10	11	12
1 Child gender	--											
2 Child age	-.05	--										
3 Mother age	.06	.11	--									
4 Mother education	.01	-.05	.13*	--								
5 Family income	-.08	-.04	.20**	.40***	--							
6 Employed	.02	.09	-.00	-.00	.15*	--						
7 No. of Children	.10	-.03	.03	-.01	-.05	-.11	--					
8 Married	-.08	.01	.11	.18**	.23**	-.23***	.15*	--				
9 CSC	.31***	-.00	.13	.16*	.03	-.15*	.12	.11	--			
10 Mother Stress	-.06	.07	-.07	-.15*	-.15*	.05	.09	-.13*	-.17**	--		
11 PSE	.15	.00	-.09	-.03	-.13	-.05	-.15*	.01	.14*	-.34***	--	
12 Inconsistency	-.06	-.03	-.07	.02	-.06	.09	.13*	-.09	.06	.23***	-.30***	--
13 Permissiveness	-.02	-.07	-.02	.03	.00	.11	-.01	-.09	-.06	.21***	-.31***	.47***

*Note:* PSE = parenting self-efficacy. CSC = child social competence. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 5  
*Zero-Order Correlations of the Study Variables in the US Sample*

United States	1	2	3	4	5	6	7	8	9	10	11	12
1 Child gender	--											
2 Child age	.02	--										
3 Mother age	.11	.12	--									
4 Mother education	.04	-.12	.24**	--								
5 Family income	-.01	-.03	.47***	.51***	--							
6 Employed	-.02	-.09	.08	.06	.12	--						
7 No. of Children	-.03	.05	-.11	-.05	-.02	-.07	--					
8 Married	.00	.11	.17*	.15	.41***	-.12	.21**	--				
9 CSC	.38***	-.06	.10	.13	.09	-.02	-.02	.09	--			
10 Mother Stress	-.12	.11	-.07	-.12	-.15	-.08	.11	-.03	.06	--		
11 PSE	.10	-.09	-.20**	-.04	-.10	.08	.06	.05	-.03	-.39***	--	
12 Inconsistency	-.08	.04	.02	-.20*	-.07	.03	.00	-.07	.02	.48***	-.50***	--
13 Permissiveness	-.13	.05	.08	-.14	-.07	.06	-.08	-.11	-.14	.30***	-.35***	.60***

*Note:* PSE = parenting self-efficacy. CSC = child social competence. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

### **Correlations between Parent Stress, PSE, Parenting Permissiveness and Inconsistency**

To answer the first and second research questions pertaining to the relations between parent perceived stress, PSE and parenting permissiveness and inconsistency, zero-order correlations between the key variables and the demographic variables were calculated.

As shown in Table 3, in the Chinese sample, there was a strong negative correlation between mothers' perceived stress and PSE,  $r = -.43, p < .001$ . However, mothers' stress was not significantly correlated with their engagement in inconsistency or permissiveness. Between PSE and parenting behaviors, a higher level of PSE was associated with less inconsistent parenting control,  $r = -.23, p = .014$ , but showed no significant correlation with permissive parenting.

Correlations in the Japanese sample were shown in Table 4. Japanese mothers' high stress was strongly correlated with low PSE,  $r = -.34, p < .001$ . High perceived stress was also associated with higher levels of parenting inconsistency ( $r = .23, p < .001$ ) as well as permissiveness ( $r = .21, p < .001$ ). Moreover, there were strong negative correlations between PSE and mothers' inconsistent ( $r = -.30, p < .001$ ) and permissive ( $r = -.31, p < .001$ ) discipline.

In the US sample, as shown in Table 5, heightened stress was strongly associated with low PSE ( $r = -.39, p < .001$ ), as well as higher levels of parenting permissiveness ( $r = .30, p < .001$ ) and inconsistency ( $r = .48, p < .001$ ). Higher PSE was inversely correlated with inconsistency ( $r = -.50, p < .001$ ) and permissiveness ( $r = -.35, p < .001$ ).

### **Mediating Role of PSE between Parent Stress and Parenting Permissiveness and Inconsistency**

Following van de Vijver and Kwok's (1997) suggestions for cross-cultural research that underscore cultural differences in the processes, path analyses were conducted to highlight the varying relations that help to explain the links among parental stress, PSE and parenting behaviors in different cultural contexts. As the correlation results indicated that all covariates were significantly correlated with the key variables in at least one of the samples, all covariates were added to the path analyses in all samples and then subject to the subsequent pruning process. Specifically, after adding all covariates in the path analysis, the covariate variable that showed the least significant coefficient (i.e., the largest p value) was eliminated from the next round of analysis. The final path models only controlled for the covariates

Figures 2, 3, and 4 present the standardized path coefficients between key variables, along with the standardized coefficients of covariates with the key variables, in each sample respectively. Adopting criteria recommended by Hooper, Coughlan, and Mullen (2008), a good model fit is indicated by an insignificant result of the Chi-Square test (i.e.,  $p > .05$ ), comparative fit index (CFI)  $\geq .95$ , root-mean-square error of approximation (RMSEA)  $< .07$ , and standardized root-mean-square residual (SRMR)  $\leq .08$ . The coefficient of a link represents the direct relationship between the two variables that the link connects, net the effects of the covariates. The indirect effects of perceived stress on permissiveness and inconsistency via PSE indicate the power of PSE as a mediator. The total effects of perceived stress on permissiveness and inconsistency consist of the indirect and the direct effects. Table 6 summarizes the total, direct and indirect effects of perceived stress on permissiveness and inconsistency in each sample.

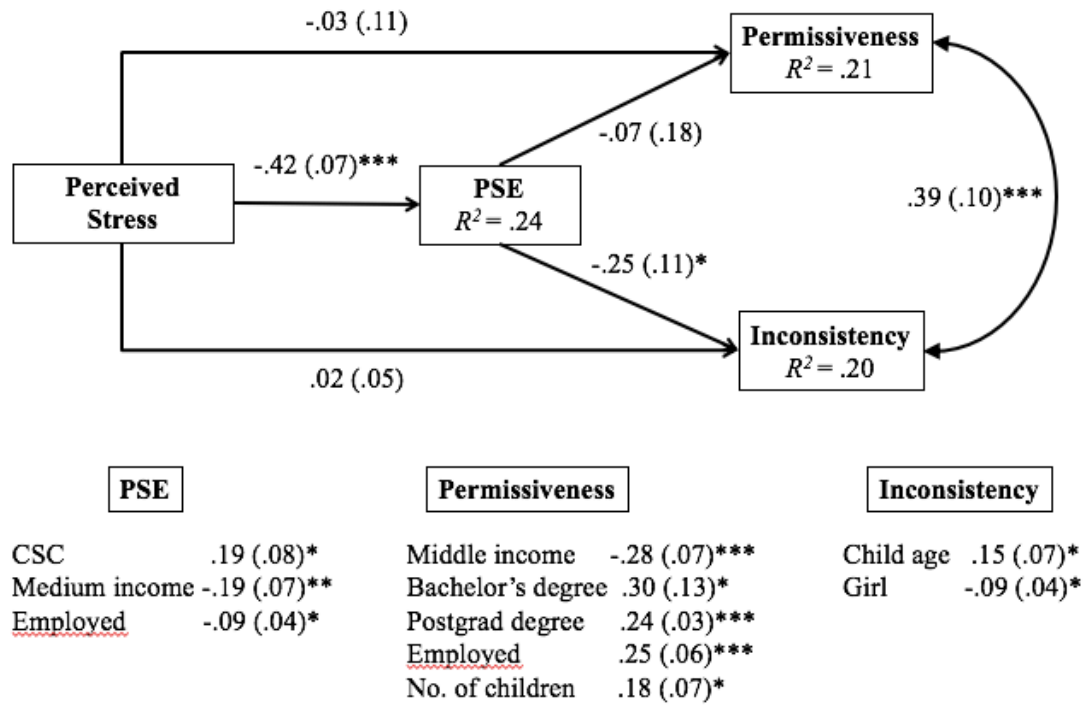


Figure 2

Standardized Path Coefficients, Standard Errors (shown in parentheses), and Explained Variance ( $R^2$ ) in the **Chinese** model. Covariates were listed at the bottom with standardized path coefficients, with the key variables if their links were significant.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$

**China.** Following the pruning process stated above, the final Chinese path model controlled for child's age, child's gender, number of children, as well as binary variables of mother's education, household income, and mother's employment status. The model showed good fit,  $\chi^2(14, N = 113) = 15.35, p = .36, CFI = .98, RMSEA = .03, SRMR = .04$ . Results of this model also showed that the study variables accounted for 24% variance of PSE ( $R^2 = .24, SD = .06, p < .001$ ), 21% variance of parenting permissiveness ( $R^2 = .21, SD = .08, p = .01$ ), and 21% variance of parenting inconsistency ( $R^2 = .21, SD = .12, p > .05$ ).

As shown in Figure 2, parent perceived stress showed a strong link to PSE ( $\beta = -.42, SD = .07, p < .001$ ), but did not show a direct link to either parenting permissiveness or inconsistency. Furthermore, PSE was directly linked to parenting inconsistency ( $\beta = -.25, SD = .11, p = .03$ ), but not to permissiveness ( $\beta = -.07, SD = .18$ ). This outcome suggests that mothers with high levels of stress reported lower PSE, and lower PSE was associated with more inconsistent parenting.

Parent perceived stress did not show a direct effect on inconsistency, but its total effect was significant,  $B = .20, SD = .08, p = .009$ . This total effect was mainly explained by the significant indirect effect via PSE,  $B = .17, SD = .07, p = .02$ . This finding suggests that PSE fully mediates between parent perceived stress and inconsistent parenting behavior. Hypothesis 7 was supported. As perceived stress did not show a total effect on permissiveness, results did not lend support to Hypothesis 6.

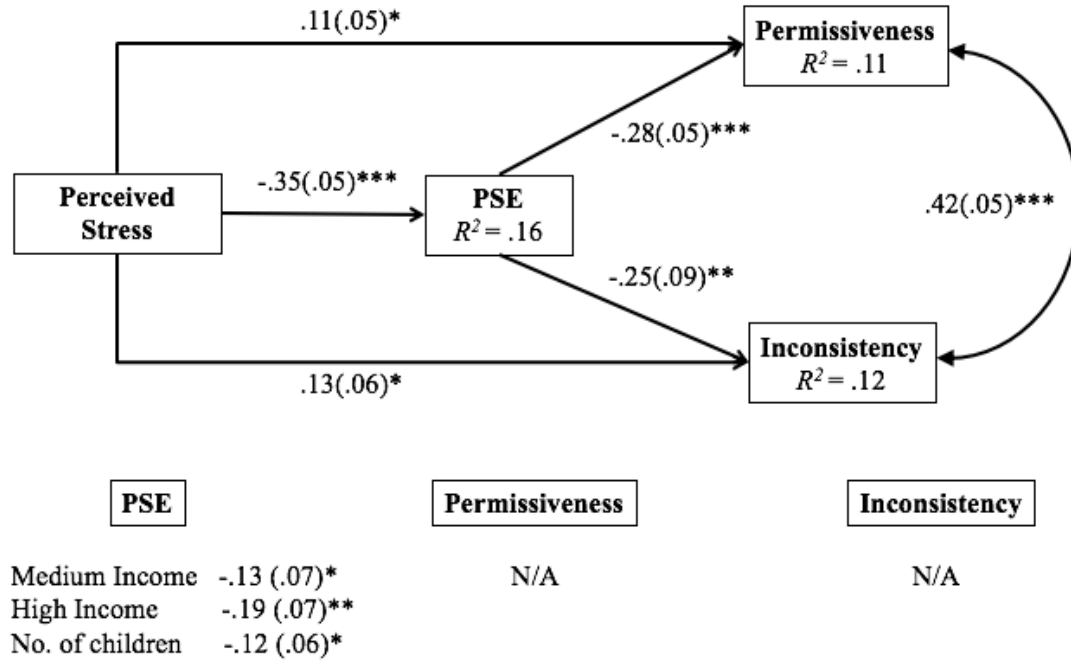


Figure 3. Standardized Path Coefficients, Standard Errors (shown in parentheses), and Explained Variance ( $R^2$ ) in the **Japanese** model. Covariates were listed at the bottom with standardized path coefficients, with the key variables if their links were significant. N/A = no covariates.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$

**Japan.** After pruning the non-significant covariates in the model, the final path model of the Japanese sample only controlled for annual household income and number of children. The Japanese model demonstrated satisfactory fit,  $\chi^2(3, N = 262) = 6.21, p = .10, CFI = .98, RMSEA = .06, SRMR = .03$ . Results suggested 16% variance of PSE ( $R^2 = .16, SD = .03, p < .001$ ), 11% variance of parenting permissiveness ( $R^2 = .11, SD = .04, p = .006$ ), and 12% of variance of inconsistency ( $R^2 = .12, SD = .04, p = .003$ ), were explained by the model.

All the hypothesized links showed statistical significance to varying degrees. Net the effects of covariates, high perceived stress was strongly linked to low PSE ( $\beta = -.35, SD = .05, p < .001$ ). Significant positive links were indicated between perceived stress and permissiveness ( $\beta = .11, SD = .05, p = .04$ ) as well as perceived stress and inconsistency ( $\beta = .13, SD = .06, p = .03$ ). PSE also showed strong links to permissiveness ( $\beta = -.28, SD = .05, p < .001$ ) as well as perceived stress and inconsistency ( $\beta = -.25, SD = .09, p = .004$ ).

Further mediation analysis suggested that the indirect effect via PSE partly explained the total effects of perceived stress on permissiveness and inconsistency. As shown in Table 6, perceived stress had a total effect on permissiveness,  $B = .22, SD = .06, p < .001$ ; the mediating effect via PSE was strong,  $B = .10, SD = .03, p < .001$ . Similarly, there was a strong total effect of perceived stress on inconsistency,  $B = .24, SD = .05, p < .001$ , which was partly accounted for through the indirect effect of PSE,  $B = .10, SD = .04, p = .014$ . PSE showed a partial mediating role in the relationships between perceived stress and permissiveness and inconsistency, supporting hypotheses 6 and 7.

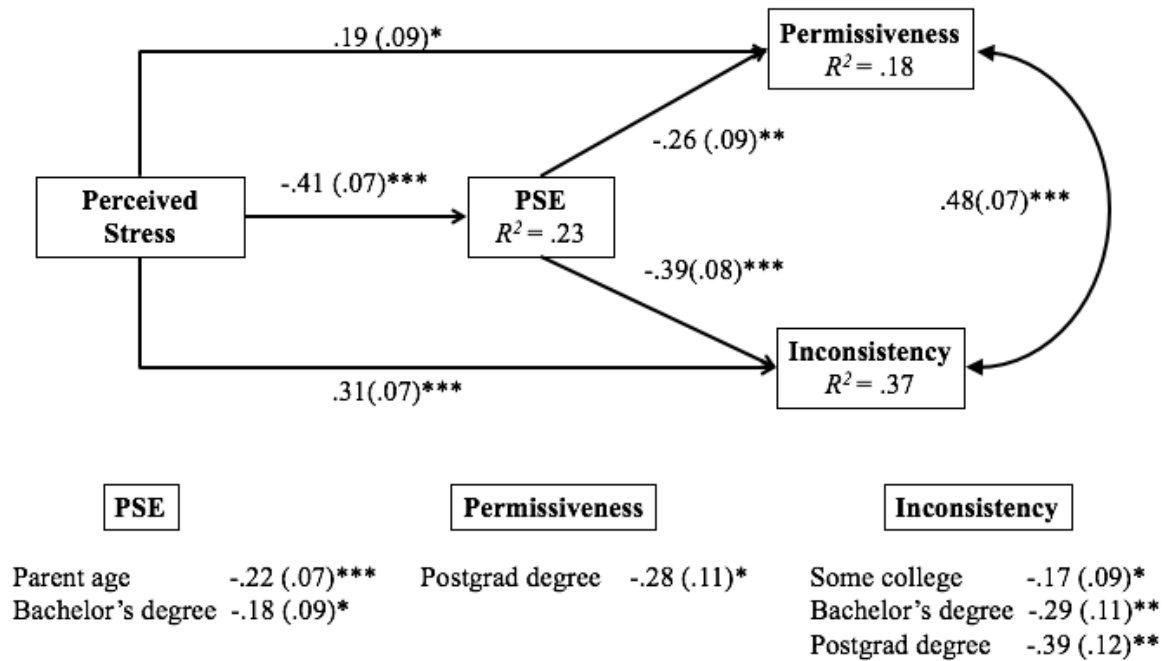


Figure 4. Standardized Path Coefficients, Standard Errors (shown in parentheses), and Explained Variance ( $R^2$ ) in the US model. Covariates were listed at the bottom with standardized path coefficients, with the key variables if their links were significant.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$

**United States.** After controlling for household income, mother's education, and mother's age, the final US path model also showed excellent fit:  $\chi^2(4, N = 165) = 3.16, p = .53, RMSEA = .00, CFI = 1.00, SRMR = .023$ . This model explained 23% variance of PSE ( $R^2 = .23, SD = .06, p < .001$ ), 18% variance of permissiveness ( $R^2 = .11, SD = .07, p = .005$ ), and 37% variance of inconsistency ( $R^2 = .37, SD = .07, p < .001$ ). All links were statistically significant, showing strong support to the proposed model.

In the US path model, perceived stress showed significant links to PSE ( $\beta = -.41, SD = .07, p < .001$ ), as well as to permissiveness ( $\beta = .19, SD = .09, p = .04$ ) and inconsistency ( $\beta = .31, SD = .07, p < .001$ ). The model also indicated strong links between PSE and permissiveness ( $\beta = -.26, SD = .09, p = .003$ ) and inconsistency ( $\beta = -.39, SD = .08, p < .001$ ).

Analysis further supported the role of PSE as a mediator between stress and parenting behaviors. The indirect effect of PSE ( $B = .11, SD = .04, p = .013$ ) partly accounted for the total effect of perceived stress on permissiveness ( $B = .30, SD = .08, p < .001$ ). Similarly, perceived stress showed an overall strong total effect on inconsistency ( $B = .61, SD = .09, p < .001$ ), including a significant indirect effect via PSE ( $B = .21, SD = .07, p = .001$ ). Given the evidence for the mediation effect of PSE, hypotheses 6 and 7 were supported in the US sample.



Table 6

*Total, Direct and Indirect Effects of Parent Stress on Permissiveness and Inconsistency in the Three Samples*

Sample	Path	Total Effect	Direct Effect	Indirect Effect
China	Stress → PSE → Permissiveness	.00 (.12) <sup>n.s.</sup>	-.05 (.17) <sup>n.s.</sup>	.05 (.12) <sup>n.s.</sup>
	Stress → PSE → Inconsistency	.20 (.08) <sup>**</sup>	.03 (.09) <sup>n.s.</sup>	.17 (.07) <sup>*</sup>
Japan	Stress → PSE → Permissiveness	.22 (.06) <sup>***</sup>	.12 (.06) <sup>*</sup>	.10 (.03) <sup>***</sup>
	Stress → PSE → Inconsistency	.24 (.05) <sup>***</sup>	.14 (.07) <sup>*</sup>	.10 (.04) <sup>*</sup>
U.S.	Stress → PSE → Permissiveness	.30 (.08) <sup>***</sup>	.19 (.09) <sup>*</sup>	.11 (.04) <sup>*</sup>
	Stress → PSE → Inconsistency	.61 (.09) <sup>***</sup>	.40 (.09) <sup>***</sup>	.21 (.07) <sup>***</sup>

*Note:* All reported coefficients are unstandardized. PSE = Parenting Self-Efficacy

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p \leq .001$ , n.s. = non-significant

### Comparing the Effects of Parent Perceived Stress across Samples

Due to uneven sample sizes as well as possible fine differences in measurement, it is only fair to compare the general patterns of the path models across the samples. First, a uniformly strong negative relationship was found between perceived stress and PSE, suggesting heightened stress may largely diminish mothers' efficacy in the parenting domain, regardless of their cultural backgrounds.

On the other hand, mothers' perception of stress levels had positive total effects on inconsistent parenting across all samples. This effect was particularly strong in the US sample, with 1-point increase of stress associated with .61-point increase of inconsistency. The mediating effect of PSE between perceived stress and inconsistency was supported across samples, but to varying degrees. This finding suggests that higher levels of parent stress can lead to lower PSE which further increases inconsistent parenting behaviors. In particular, this mediation via PSE fully explained the effect of parent stress on inconsistency in the Chinese sample.

The effects of perceived stress on permissive parenting showed considerable variations across the three samples. In both the Japanese sample and the US sample, there were strong total effects of stress on permissiveness, which were partially explained by the indirect effects via PSE. In addition, this indirect effect via PSE appeared stronger in the Japanese sample than in the US sample. In comparison, in the Chinese sample, neither direct nor indirect effect of stress on permissiveness were indicated, suggesting that Chinese mothers' perception of stress did not seem to affect their use of permissive parenting behaviors.

In sum, in all three samples, hypotheses 1 to 5 were supported, with the exception that hypotheses 2, 3 and 5 were not supported in the Chinese sample. Findings supported hypothesis 7 across all samples, while hypothesis 6 was supported in the Japanese sample and US sample only. As a result, hypothesis 8 was not supported.

### Discussion

Parent cognition, although a pivotal factor in theoretical models on parental stress and coping (Abidin, 1992; Lazarus & Folkman, 1984), has not been adequately examined empirically, particularly outside of English-speaking countries. Prior research has mostly focused on harsh

parenting and parental emotional distress as the possible pathways through which family stress impact parents and children, overlooking the heterogeneity in the stress and coping experiences. To fill the research gap, in the present study, I examined two forms of disciplinary approaches, inconsistent parenting and permissive parenting, as mothers' potential responses to stress. In addition, I tested the mediational role of parenting self-efficacy between parent perceived stress and parenting permissiveness and inconsistency. Path analysis was conducted with survey data collected from middle-class, urban mothers in China, Japan and the U.S.

### **Inconsistent and Permissive Parenting as Responses to Stress**

Results from this study confirmed a positive correlation between mothers' perception of stress and their report of using inconsistent discipline in all three samples. It suggests that mothers under higher levels of stress reported their discipline as more unpredictable and mood-dependent. This finding is consistent with previous studies that have showed that stressed parents were more likely to demonstrate ineffective parenting practices including inconsistent discipline (Lempers et al., 1989; Simons, Beaman, Conger & Chao, 1993; Rodgers, 1998).

Similarly, this study also found a significant positive correlation between mothers' perceived stress and their use of permissive parenting in the US and Japanese samples, but not in the Chinese sample. It suggests that mothers in the US and Japan tend to relinquish control when stress becomes overwhelming.

Notably, there was a strong positive correlation between inconsistency and permissiveness in all three samples, implying a considerable cooccurrence of these two parenting approaches. Given that permissive parenting and inconsistent parenting were often empirically related to undesirable child outcomes and thus labeled ineffective parenting practices, this positive correlation is expected.

Much of research on inconsistent parenting has focused on its conceptual and empirical closeness with harsh discipline or parental rejection due to their associations with child behavioral problems (e.g., Brody et al., 2001; Edens, Skopp & Cahill, 2008). Evidence from this study reminds researchers to pay attention to the coalescence of inconsistent and permissive parenting in middle or high SES families. As the defining feature of inconsistent discipline is the unpredictable, varying degree of parental control, the strength of this correlation might suggest the extent to which parents' discipline swung to the lenient end, showing behaviors such as failing to follow through discipline. This finding resonates with a new direction of research on parental use of a combination of harsh and lax control, or "seesaw discipline" as named by Parent, McKee and Forehand (2016). It was found that US parents who engage in seesaw discipline have children who demonstrate more internalizing symptoms. Similarly, in another study with adopted Chinese girls in the US and Canada, family stress was shown associated with high levels of authoritarian and permissive parenting, both of which were also positively correlated with children's conduct problem (Tan, Camras, Deng, Zhang, & Lu, 2012).

### **PSE as a Mediational Construct**

Evidence from this study supported the mediator role of PSE in the links between stress and inconsistent and permissive discipline, shedding light on how stress affects parenting behavior through parent cognition. That is, in the face of stress, parents' confidence in their parenting role tends to decrease, which in turn leads to difficulties with exerting control. Parents' uncertainty about whether they have done enough for their children or have any control over their future may explain why stressed parents use too much or too little control over their children's lives.

This finding paints the same picture of contemporary parents that recent parenting research has depicted. Grolnick and Seal (2008) describe the “pressured parent phenomenon” where children’s ever-growing academic, artistic and athletic competitions in the past decade have engendered increasing doubts in parents and pushed them to constantly choose between decisions that make children happy or push them to excel. In the literature on Chinese parenting, Xu’s (2017) recent ethnographic study also highlights parents’ uncertainty and anxieties about parenting related to high educational aspirations, as well as the common dissonance between a utilitarian and results-driven real life and the moral ideology that parents want to teach their children. Furthermore, Holloway (2010) has documented Japanese mothers’ narratives and experiences that lack of support and restrictive cultural expectations of mothers often have made parenting a daunting task and instilled a feeling of inadequacy in them, which becomes more salient during or after their struggle with child discipline. These qualitative studies have provided valuable insights into parents’ sources and experiences of stress and how their parenting perceptions and practices are impacted.

Alternative explanations of the stress – PSE – parent discipline relationship need to be considered. One of plausible interpretations involves the role of parents’ psychological distress, such as parental hostility, depressed affect, anxiety, etc. Theorists have argued that it is difficult, and arguably impossible, to conceptually and psychometrically distinguish perception of stress from psychological distress (Lazarus, DeLongis, Folkman, & Gruen, 1985; Cohen & Williamson, 1988). Research studies have repeatedly shown that psychological distress is associated with both PSE (e.g., Gondoli & Silverberg, 1997; Gross, et al, 1994) and parental discipline (e.g., Arditti, Burton, & Neeves-Botelho, 2010; Shay & Knutson, 2008). The emotional and somatic factors actively interact with the environment and the cognitive factors, implying that permissive and inconsistent discipline can at least partially result from maternal distress.

The transactional nature of the behavior and cognition relationship affords another interpretation. Instead of stress affecting parent self-efficacy and discipline, a handful studies have suggested ineffective parenting behaviors predict high parental stress and lower PSE. For example, in a longitudinal study with 54 aggressive boys in Singapore, parental lax control and overreactivity were found associated with higher parenting stress three months later (Ang, 2008). Parents’ experiences of resorting to inept parenting practices to overcome childrearing challenges may become the basis on which parents judge themselves as not competent.

### **Parental Stress and Use of Permissive Parenting in a Sociocultural Context**

While data supported the proposed effect of parental stress on permissiveness in both US and Japan, stress did not have a direct or an indirect effect on permissiveness in the Chinese model. Although Chinese mothers reported the highest level of permissiveness among the three groups, as shown in Table 2, their leniency towards children was not adequately explained by stress or their self-appraisal of parenting competency. Rather, as indicated by its correlations with the covariates (see Figure 2), Chinese parents’ permissive discipline largely depended on mothers’ demographics. Specifically, Chinese mothers who reported higher levels of permissiveness were employed outside home, more educated, having more children (i.e., not conforming to the birth-control policy), and not earning medium income. This profile largely represents the image of modern women who are independent and less traditional. Relinquishing parental control likely reflects the “cage-free rearing” (*san yang*) parenting approach that urban Chinese parents consciously choose for the purpose of balancing and compensating for the rigidity and stress children face in the schooling system (Xu, 2017). Directed by the goal of fostering children’s autonomy, independence, creativity and happiness (Way et al., 2013; Ren &

Edwards, 2016), Chinese parents may endorse permissiveness as a flexible and caring parenting approach that is conducive to children's development.

Access to childrearing support is another factor that has potentially helped Chinese mothers ward off stress. In contrast to Japanese mothers who often suffer from a lack of support from their husband and in-laws (Holloway, 2010; Kazui, 1997), Chinese mothers in this study seemed to have childrearing support from both involving fathers and grandparents. In the Chinese sample, about 30% of the surveys were spontaneously filled out by the fathers (vs. 5% in Japan and 15% in the US), implying greater engagement of Chinese fathers in parenting. Meanwhile, 41% of the Chinese mothers reported they had at least some childcare help from other family members, and nearly 1 in 5 families reported that grandparents were solely in charge of childcare (i.e., logistic aspects of the child's life typically including food, clothes, hygiene, and daily commute). It is likely that the access to support, both from their husband and the grandparents, plays an important role in differentiating Chinese mothers' stress and coping experiences from those of the mothers in the other two samples.

### **Limitations and Future Directions**

Drawing survey data from three countries, this study contributes to our understanding of the impact of parental stress, focusing on parental use of inconsistent and permissive discipline and a mediating role of parenting self-efficacy. However, several limitations need to be noted. First, although the present study found PSE plays a pivotal role in mediating stress and parental discipline, alternative models were not attempted to examine whether PSE can play a moderator role in this process, a possibility suggested by theoretical models (Bandura, 1982, 1997; Lazarus & Folkman, 1984) and prior research (e.g., Kwok & Wong, 2000). In addition, the current analytic approach for detecting mediational effects, although a common approach used in the field of family studies, is based on the covariations of constructs that were assessed concurrently. It implies that stated findings are subject to a host of confounding effects. Longitudinal and experimental designs will enable researchers to better disentangle the effect of stress and PSE from those of other familial and parental factors. It will also allow researchers to examine the stability and fluctuation of parents' self-efficacy.

I also acknowledge that current measurements can be strengthened. For example, this study only utilized domain-general measures of parental stress and inconsistency, whereas some scholars have argued for the multidimensional nature of these constructs. With regard to parental stress, it is widely acknowledged that parents' stress stems from multiple sources, including economic hardship, career, marital conflicts, mental and physical health, and difficulty with parenting tasks, etc. (Webster-Stratton, 1990). Abidin's (1990, 1991) research also supports further subdomains of parenting stress. However, although domain-specific stress measures relate to parenting variables and child outcomes to varying degrees (e.g., Beckerman, van Berkel, Mesman, & Alink, 2017; Rodgers, 1998), stresses from different domains also transfer and affect the family in the same valence (Greenberger, O'Neil, & Nagel, 1994; Nelson, O'Brien, Blankson, Calkins, & Keane, 2009). The current measure of stress reflects parents' overall feeling of environmental demandingness. Similar to stress, Rossman and Rea (2005) argue that inconsistency is a multifaceted construct, including affective inconsistency (e.g., mood swing), disparity between the parent's expectation and the structure the child perceived, and a mismatch between the family's parenting style and the parenting style recognized in the mainstream culture. Dwairy (2008) proposed a different taxonomy of inconsistency, and showed that the negative impact of its subtypes on children differed. These nuances of parental stress and inconsistency, albeit interesting, were not captured in the current study.

Another limitation pertains to the fact that the cross-sample measurement equivalency of parenting permissiveness and inconsistency was not established in this study. Although Cronbach's alphas of these measures indicated acceptable internal consistency, no other psychometric indicators were available to guarantee that the items assessing permissiveness and inconsistency were understood and interpreted similarly by mothers of different cultural heritage. Future studies may use instruments with established cross-cultural equivalency, which will allow further analysis to test moderation of culture. Another measurement improvement can be made is to provide more higher-end income options in the survey to avoid the ceiling effect as observed in the Chinese and US samples. These measurement improvements would minimize the potential measurement error that can lead to changes in the magnitude of the coefficients.

Lastly, very few studies have examined the connotation of parenting permissiveness within different cultural contexts. The power and meaning of a construct may shift as cultural beliefs change (for an example of conceptualization change of shyness in Chen & Chen, 2010). The cultural difference identified regarding permissiveness calls for a close examination of Chinese mothers' understanding of permissive parenting and its effects on child adjustment, taking into account of their perceptions of child stress and available social support.

### **Implications**

*Theoretical Implications.* Cross-cultural evidence from this study further corroborates the negative effects of parental stress on parent cognition and behavior, and more importantly, attests to a pivotal role of parenting cognition in the stress and coping processes as proposed by existing theories (Bandura, 1982, 1997; Lazarus & Folkman, 1984). This study has shown that permissive and inconsistent parenting are possible parents' reactions to stress. This discovery has expanded prior narrow focus on harsh parenting and parental psychological distress in stress research.

Another contribution of the current study is adding to our understanding of inconsistent and permissive parenting. Across three samples, these two constructs showed significant correlations, indicating possible conceptual connections between permissive and inconsistent discipline. On the other hand, the unexpected finding that permissiveness of Chinese mothers was free from the influence of parental stress or low parenting self-efficacy urges researchers to further study parenting in its sociocultural context.

*Practical Implications.* In light of the effects of stress revealed in this study, stressed parents may exhibit more self-doubt as well as greater use of ineffective discipline strategies. These cognitive and behavioral changes induced by parental stress may further result in impact on family dynamics and child adjustment.

Emphasizing the importance of parenting self-efficacy, parent counseling and training programs need to strive to better understand and monitor parents' self-evaluation of parenting capacity, particularly considering elevated stress is a common experience for the clinical population. Promoting parents' confidence in the parenting role and diffusing parenting anxiety may help parents apply consistent discipline in accordance to their parenting goals. Therapeutic approaches that target at changing maladaptive parenting beliefs, e.g., cognitive-behavioral therapy, may help mitigate parents' tendency to use ineffective parenting discipline.

Findings on the cultural difference regarding parenting permissiveness reminds practitioners of the importance of adopting culturally sensitive practices. Although heightened stress may adversely impact parents in similar ways, parents' ideas of parenting practices need to be respected and understood in alignment with their interpretations of familial, societal, and cultural factors.

**Conclusion**

With insights from middle-class, urban mothers in three countries, this study contributes to the research on parental stress by highlighting the role of parenting self-efficacy as a mediator between mothers' perception of stress and their use of permissive and inconsistent discipline. Across three samples, findings are consistent with theoretical predictions, indicating that mothers' perception of stress may diminish their confidence in parenting, which in turn leads to use of inept discipline. The only exception is that permissive parenting was not subject to the influence of stress or parenting self-efficacy among Chinese mothers, possibly because permissive discipline represents a flexible and accommodating parenting choice in China. Future parenting interventions with diverse populations may help decrease the negative effects of stress on ineffective discipline by enhancing parents' efficacy.

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Appendix: Instruments for Key Variables.

**Berkeley Parenting Self-Efficacy Revised Scale (Holloway et al., 2019)**

6-point Likert scale (1 = not at all confident, 6= very confident)

*Maternal strategy subscale (7 items)*

1. Listen to my child
2. Understand my child's feelings
3. Control my emotions in front of my child
4. Avoid over-reacting when my child misbehaves
5. Explain things so that my child will understand
6. Praise my child when he/she does well
7. Discipline my child firmly when he/she misbehaves

*Child outcome subscale (15 items)*

1. To eat a variety of nutritious foods
2. To get enough sleep
3. To be polite (e.g., say please and thank you)
4. To get along with other children
5. To continue trying even when something is difficult
6. To help other children when they need it
7. To care about other people's feelings
8. To control anger or frustration
9. To enjoy books and reading
10. To try to do things on his/her own
11. To finish homework in a timely manner
12. To do homework neatly and precisely
13. To have a strong will so that he/she is not easily swayed by friends
14. To tell parents when something significant happens at school
15. To not get discouraged when he/she makes mistakes

**Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983)**

The questions in this scale ask you about your feelings and thoughts during the last month.

In the last month, how often have you been...

1. upset because of something that happened unexpectedly?
2. felt that you were unable to control the important things in your life?
3. felt nervous and "stressed"?
4. felt confident about your ability to handle your personal problems? (REVERSED)
5. felt that things were going your way? (REVERSED)
6. found that you could not cope with all the things that you had to do?
7. able to control irritations in your life? (REVERSED)
8. felt that you were on top of things? (REVERSED)
9. angered because of things that were outside of your control?
10. felt difficulties were piling up so high that you could not overcome them?

**Weinberger Parenting Inventory – Parent version (Weinberger, 1991)*****Permissiveness:***

1. People tell me that I let my child get away with too much.
2. I threaten my child with kinds of punishments I would never actually use.
3. I let my child get away with things that maybe I should be tougher about.
4. I let my child buy things that I'm not sure are good things for him/her to have.
5. I let my child bend the rules more than I should.
6. I let my child do what he/she wants in situations in which maybe I should be stricter.

***Inconsistency:***

1. Sometimes I really get after my child, while other times that same thing doesn't really bother me.
2. The punishments I decide on are often influenced by what mood I am in
3. I have a habit of suddenly getting upset about things after letting them "slide" for a while.
4. As a parent, I am sometimes very loving and other times pretty hard to deal with.
5. My child has a difficult time figuring out when I will disapprove of something he/she has done.
6. I am easy on my child one minute and hard on my child the next.